

§ 1910.35

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Occupant load means the total number of persons that may occupy a workplace or portion of a workplace at any one time. The occupant load of a workplace is calculated by dividing the gross floor area of the workplace or portion of a workplace by the occupant load factor for that particular type of workplace occupancy. Information regarding “Occupant load” is located in NFPA 101–2000, Life Safety Code.

Refuge area means either:

(1) A space along an exit route that is protected from the effects of fire by separation from other spaces within the building by a barrier with at least a one-hour fire resistance-rating; or

(2) A floor with at least two spaces, separated from each other by smoke-resistant partitions, in a building protected throughout by an automatic sprinkler system that complies with § 1910.159 of this part.

Self-luminous means a light source that is illuminated by a self-contained power source (e.g., tritium) and that operates independently from external power sources. Batteries are not acceptable self-contained power sources. The light source is typically contained inside the device.

[67 FR 67961, Nov. 7, 2002]

EFFECTIVE DATE NOTE: At 76 FR 33606, June 8, 2011, § 1910.34 was amended by revising the definition of the term “Occupant load” in paragraph (c), effective July 8, 2011. For the convenience of the user, the revised text is set forth as follows:

§ 1910.34 Coverage and definitions.

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(c) * * *

Occupant load means the total number of persons that may occupy a workplace or portion of a workplace at any one time. The occupant load of a workplace is calculated by dividing the gross floor area of the workplace or portion of the workplace by the occupant load factor for that particular type of workplace occupancy. Information regarding the “Occupant load” is located in NFPA 101–2009, Life Safety Code, and in IFC–2009, International Fire Code (incorporated by reference, see § 1910.6).

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§ 1910.35 Compliance with NFPA 101–2000, Life Safety Code.

An employer who demonstrates compliance with the exit route provisions of NFPA 101–2000, the Life Safety Code, will be deemed to be in compliance with the corresponding requirements in §§ 1910.34, 1910.36, and 1910.37.

[67 FR 67961, Nov. 7, 2002]

EFFECTIVE DATE NOTE: At 76 FR 33606, June 8, 2011, § 1910.35 was revised, effective July 8, 2011. For the convenience of the user, the revised text is set forth as follows:

§ 1910.35 Compliance with alternate exit-route codes.

OSHA will deem an employer demonstrating compliance with the exit-route provisions of NFPA 101, Life Safety Code, 2009 edition, or the exit-route provisions of the International Fire Code, 2009 edition, to be in compliance with the corresponding requirements in §§ 1910.34, 1910.36, and 1910.37 (incorporated by reference, see section § 1910.6).

§ 1910.36 Design and construction requirements for exit routes.

(a) *Basic requirements.* Exit routes must meet the following design and construction requirements:

(1) *An exit route must be permanent.* Each exit route must be a permanent part of the workplace.

(2) *An exit must be separated by fire resistant materials.* Construction materials used to separate an exit from other parts of the workplace must have a one-hour fire resistance-rating if the exit connects three or fewer stories and a two-hour fire resistance-rating if the exit connects four or more stories.

(3) *Openings into an exit must be limited.* An exit is permitted to have only those openings necessary to allow access to the exit from occupied areas of the workplace, or to the exit discharge. An opening into an exit must be protected by a self-closing fire door that remains closed or automatically closes in an emergency upon the sounding of a fire alarm or employee alarm system. Each fire door, including its frame and hardware, must be listed or approved by a nationally recognized testing laboratory. Section 1910.155(c)(3)(iv)(A) of this part defines “listed” and § 1910.7 of this part defines a “nationally recognized testing laboratory.”

(b) *The number of exit routes must be adequate*—(1) *Two exit routes.* At least two exit routes must be available in a workplace to permit prompt evacuation of employees and other building occupants during an emergency, except as allowed in paragraph (b)(3) of this section. The exit routes must be located as far away as practical from each other so that if one exit route is blocked by fire or smoke, employees can evacuate using the second exit route.

(2) *More than two exit routes.* More than two exit routes must be available in a workplace if the number of employees, the size of the building, its occupancy, or the arrangement of the workplace is such that all employees would not be able to evacuate safely during an emergency.

(3) *A single exit route.* A single exit route is permitted where the number of employees, the size of the building, its occupancy, or the arrangement of the workplace is such that all employees would be able to evacuate safely during an emergency.

NOTE TO PARAGRAPH 1910.36(b): For assistance in determining the number of exit routes necessary for your workplace, consult NFPA 101-2000, Life Safety Code.

(c) *Exit discharge.* (1) Each exit discharge must lead directly outside or to a street, walkway, refuge area, public way, or open space with access to the outside.

(2) The street, walkway, refuge area, public way, or open space to which an exit discharge leads must be large enough to accommodate the building occupants likely to use the exit route.

(3) Exit stairs that continue beyond the level on which the exit discharge is located must be interrupted at that level by doors, partitions, or other effective means that clearly indicate the direction of travel leading to the exit discharge.

(d) *An exit door must be unlocked.* (1) Employees must be able to open an exit route door from the inside at all times without keys, tools, or special knowledge. A device such as a panic bar that locks only from the outside is permitted on exit discharge doors.

(2) Exit route doors must be free of any device or alarm that could restrict

emergency use of the exit route if the device or alarm fails.

(3) An exit route door may be locked from the inside only in mental, penal, or correctional facilities and then only if supervisory personnel are continuously on duty and the employer has a plan to remove occupants from the facility during an emergency.

(e) *A side-hinged exit door must be used.* (1) A side-hinged door must be used to connect any room to an exit route.

(2) The door that connects any room to an exit route must swing out in the direction of exit travel if the room is designed to be occupied by more than 50 people or if the room is a high hazard area (*i.e.*, contains contents that are likely to burn with extreme rapidity or explode).

(f) *The capacity of an exit route must be adequate.* (1) Exit routes must support the maximum permitted occupant load for each floor served.

(2) The capacity of an exit route may not decrease in the direction of exit route travel to the exit discharge.

NOTE TO PARAGRAPH 1910.36(f): Information regarding "Occupant load" is located in NFPA 101-2000, Life Safety Code.

(g) *An exit route must meet minimum height and width requirements.* (1) The ceiling of an exit route must be at least seven feet six inches (2.3 m) high. Any projection from the ceiling must not reach a point less than six feet eight inches (2.0 m) from the floor.

(2) An exit access must be at least 28 inches (71.1 cm) wide at all points. Where there is only one exit access leading to an exit or exit discharge, the width of the exit and exit discharge must be at least equal to the width of the exit access.

(3) The width of an exit route must be sufficient to accommodate the maximum permitted occupant load of each floor served by the exit route.

(4) Objects that project into the exit route must not reduce the width of the exit route to less than the minimum width requirements for exit routes.

(h) *An outdoor exit route is permitted.* Each outdoor exit route must meet the minimum height and width requirements for indoor exit routes and must also meet the following requirements:

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(1) The outdoor exit route must have guardrails to protect unenclosed sides if a fall hazard exists;

(2) The outdoor exit route must be covered if snow or ice is likely to accumulate along the route, unless the employer can demonstrate that any snow or ice accumulation will be removed before it presents a slipping hazard;

(3) The outdoor exit route must be reasonably straight and have smooth, solid, substantially level walkways; and

(4) The outdoor exit route must not have a dead-end that is longer than 20 feet (6.2 m).

[67 FR 67961, Nov. 7, 2002]

EFFECTIVE DATE NOTE: At 76 FR 33606, June 8, 2011, § 1910.36 was amended by revising the notes to paragraphs (b) and (f), effective July 8, 2011. For the convenience of the user, the revised text is set forth as follows:

§ 1910.36 Design and construction requirements for exit routes.

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(b) * * *

(3) * * *

NOTE TO PARAGRAPH (B) OF THIS SECTION: For assistance in determining the number of exit routes necessary for your workplace, consult NFPA 101–2009, Life Safety Code, or IFC–2009, International Fire Code (incorporated by reference, see § 1910.6).

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(f) * * *

(2) * * *

NOTE TO PARAGRAPH (F) OF THIS SECTION: Information regarding the “Occupant load” is located in NFPA 101–2009, Life Safety Code, and in IFC–2009, International Fire Code (incorporated by reference, see § 1910.6).

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§ 1910.37 Maintenance, safeguards, and operational features for exit routes.

(a) *The danger to employees must be minimized.* (1) Exit routes must be kept free of explosive or highly flammable furnishings or other decorations.

(2) Exit routes must be arranged so that employees will not have to travel toward a high hazard area, unless the path of travel is effectively shielded from the high hazard area by suitable partitions or other physical barriers.

(3) Exit routes must be free and unobstructed. No materials or equipment may be placed, either permanently or temporarily, within the exit route. The exit access must not go through a room that can be locked, such as a bathroom, to reach an exit or exit discharge, nor may it lead into a dead-end corridor. Stairs or a ramp must be provided where the exit route is not substantially level.

(4) Safeguards designed to protect employees during an emergency (*e.g.*, sprinkler systems, alarm systems, fire doors, exit lighting) must be in proper working order at all times.

(b) *Lighting and marking must be adequate and appropriate.* (1) Each exit route must be adequately lighted so that an employee with normal vision can see along the exit route.

(2) Each exit must be clearly visible and marked by a sign reading “Exit.”

(3) Each exit route door must be free of decorations or signs that obscure the visibility of the exit route door.

(4) If the direction of travel to the exit or exit discharge is not immediately apparent, signs must be posted along the exit access indicating the direction of travel to the nearest exit and exit discharge. Additionally, the line-of-sight to an exit sign must clearly be visible at all times.

(5) Each doorway or passage along an exit access that could be mistaken for an exit must be marked “Not an Exit” or similar designation, or be identified by a sign indicating its actual use (*e.g.*, closet).

(6) Each exit sign must be illuminated to a surface value of at least five foot-candles (54 lux) by a reliable light source and be distinctive in color. Self-luminous or electroluminescent signs that have a minimum luminance surface value of at least .06 footlamberts (0.21 cd/m²) are permitted.

(7) Each exit sign must have the word “Exit” in plainly legible letters not less than six inches (15.2 cm) high, with the principal strokes of the letters in the word “Exit” not less than three-fourths of an inch (1.9 cm) wide.

(c) *The fire retardant properties of paints or solutions must be maintained.* Fire retardant paints or solutions must be renewed as often as necessary to